

REMARKS

I. Status of Claims

Claims 1-18 are pending in the application. Claims 1, 10, and 17 are independent and currently amended. The Applicant respectfully submits that support for these amendments can at least be found in paragraph [0029], and in FIG. 2, of the present application as published.

Accordingly, the Applicant respectfully believes that no new matter is added.

Claims 1-8, 10-15, and 17-18 stand rejected under 35 USC 102(b) as allegedly anticipated by Ritter et al. (USP 4,779,577) (“Ritter”).

Claims 9 and 16 stand rejected under 35 USC 103(a) as allegedly being unpatentable over Ritter as applied to claim 1 or claim 10 and further in view of Weisman II et al. (USP 5,647,317) (“Weisman”).

The Applicant respectfully requests reconsideration of the rejections in view of the foregoing amendments and the following remarks.

II. Pending Claims

Independent claims 1, 10, and 17 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Ritter.

The Applicant respectfully submits that claims 1, 10, and 17 are patentable over the cited references at least because they recite, *inter alia*, “wherein, when there is no abnormality, the control module includes cooling level logic, the cooling level logic receives a plurality of cooling need levels from said control signals, and ***wherein the cooling level logic controls said outside air supply regulation module based on a maximum cooling need level of the plurality of cooling need levels.***” (emphasis added)

In certain embodiments of the cooling system of the present application, the level or rate of cooling is controlled based on various input parameters, such as those from temperature sensors. These input parameters are used to determine the need for cooling in various sections of

the cooling system. Each section is assigned a separate cooling need based on these inputs (for example, drive demands F_e , F_w , and F_a as described in paragraphs [0022] – [0024] of the present application). In a more specific embodiment, the level of cooling is determined based on the maximum cooling need of the cooling system, as described for example in paragraph [0029], provided herein below, and in step S120 of FIG. 2, of the present application as published.

[0029] No detection of any abnormality in the input data at step S110 proves that the data input at step S100 are all normal and that the standard operations will not lead to a temperature rise to an abnormally high level in any of the engine 22, the motors MG1 and MG2, the inverters 41 and 42, and the passenger compartment. The engine ECU 24 accordingly sets the maximum among the drive demands F_e , F_m , and F_a of the cooling fan 130 to the actual drive level F^* of the cooling fan (step S130). In one example, when the drive demands F_e , F_m , and F_a are respectively set at the high level (Hi), the medium level (M), and the medium level (M), the high level (Hi) is set to the actual drive level F^* . In another example, when the drive demands F_e , F_m , and F_a are respectively set at the low level (Lo), the medium level (M), and the medium level (M), the medium level (M) is set to the actual drive level F^* . After setting the actual drive level F^* , the fan motor 131 is controlled to drive the cooling fan 130 at the determined drive level F^* (step S140). The cooling fan drive control routine is then terminated. In the normal state, the actual drive level F^* of the cooling fan 130 is determined, in response to the drive demand F_e based on the cooling water temperature in the engine cooling circuit 100, the drive demand F_m based on the cooling water temperature in the motor cooling circuit 110, and the drive demand F_a based on the coolant temperature in the air conditioning system 120. Such regulation enables the circulated flow of cooling water through the engine cooling circuit 100, the circulated flow of cooling water through the motor cooling circuit 110, and the circulated flow of the coolant through the air conditioning system 120 to be adequately cooled down. The determination of the actual drive level F^* of the cooling fan 130 according to the drive demands F_e , F_m , and F_a effectively prevents the fan motor 130 from uneconomically consuming the electric power to drive the cooling fan 130.

In order to further distinguish the inventions of claims 1, 10, and 17 from Ritter, without waiving any argument, and to facilitate prosecution, claims 1, 10, and 17 have been amended to

recite that “...wherein, when there is no abnormality, the control module includes cooling level logic, the cooling level logic receives a plurality of cooling need levels from said control signals, and wherein the cooling level logic controls said outside air supply regulation module based on a maximum cooling need level of the plurality of cooling need levels....”

Ritter discloses a cooling air control system having various coolant circuits and means for cooling these circuits using a fan and an airflap. Also, the Ritter device further uses sensors to detect various parameters in the engine system. These parameters are used to determine the extent to which the airflap should be opened. However, it is respectfully submitted that Ritter does not describe ***a cooling system using the maximum of all need inputs to determine the cooling level for the system*** as required by the inventions of claims 1, 10, and 17. Accordingly, lacking any teaching and/or suggestion of each and every limitation of the Applicant’s claims, Ritter does not anticipate the inventions of 1, 10, and 17 as alleged. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Further, neither Weisman nor any of the other cited references address the deficiencies of Ritter. As discussed in *KSR Int’l Co. v. Teleflex, et al.*, No. 04-1350, (U.S. Apr. 30, 2007), the Applicant respectfully submits that it remains necessary to identify the reason why a person of ordinary skill in the art would have been prompted to combine alleged prior art elements in the manner as claimed by the Applicant. Obviousness cannot be sustained on mere conclusory statements.

Therefore, the Applicant respectfully submits that, for at least these reasons, claims 1, 10, and 17, as well as their dependent claims, are patentable over the cited references.

III. Conclusion

In light of the above discussion, the Applicant respectfully submits that the present application is in all aspects in allowable condition, and earnestly solicits favorable reconsideration and early issuance of a Notice of Allowance.

The Examiner is invited to contact the undersigned at (202) 220-4420 to discuss any matter concerning this application. The Office is authorized to charge any fees related to this communication to Deposit Account No. 11-0600.

Respectfully submitted,

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